Chapter

25

Archaeaon and Vitamin C Synthesis - The Vitaminocyte Organelle

Introduction

Ascorbic acid is not synthesized by primates and humans. Vitamin C is synthesized from monosacharides especially mannose, galactose or glucose. Primates and humans have the mutated form of the enzyme L-gulonolactone oxidase and are therefore not able to synthesize vitamin C. Archaea are endosymbionts in the human cell and function as cellular organelle. Archaea have the vitamin C synthetic pathway. Therefore the human cell could be able to synthesize vitamin C using endosymbiotic archaea functioning as organelle.

Materials and Methods

10 normal individuals were drawn for the study. 10 ml of plasma from heparinised blood was taken for the study. The experimental protocols was as follows: (1) Plasma+buffered saline containing glucose 1 mg/ml with vitamin C concentration measured at 0 time and 2 hour time. (2) Plasma+doxy 1 mg/ml+buffered saline containing glucose 1 mg/ml with vitamin C concentration measured at 0 time and 2 hour time. Cytochrome F420 activity was also assessed.

Results

The vitamin C level were found to increase spontaneously from 9 mg/l at 0 time to 14 mg/l at 2 hr. in experimental protocol (1) containing plasma+buffered saline with glucose at 1 mg/ml. The solution also showed cytochrome F420 activity. The protocol (2) containing plasma+doxy+buffered saline containing glucose at 1 mg/ml had no vitamin C activity detected or

cytochrome F420 activity detected. The archaeal endosymbionts or archaeaon could thus synthesizes vitamin C.

Discussion

The study demonstrates that vitamin C is synthesized by endosymbiotic archaeaon. It functions as a vitaminocyte. The primates and humans lost the capacity to synthesize vitamin C. L-gulonolactone oxidase is deficient in humans. Vitamin C deficiency is a genetic disease. Vitamin C deficiency played an important role in human evolution. Vitamin C is an anti-oxidant. Its deficiency leads to free radical generation and modulation of monoaminergic and glutamatenergic neurotransmission and evolution of the cerebral cortex. The generation of free radicals may have played the role in conscious perception and the bigger size of the primate cerebral cortex as seen in homo sapiens. The capacity to generate vitamin C synthesis by endosymbiotic archaea may shrink the cerebral cortex and increase the cerebellar size leading onto the dominance of the unconscious brain as seen in homo neanderthalis. Vitamin C deficiency is implicated in disorders of consciousness like schizophrenia and autism.

Vitamin C deficiency leads to defective collagen synthesis and breaks in the vessel wall producing damage which is healed by adhesion of lipoprotein a to the vessel wall producing atherosclerosis. Atherosclerosis is a genetic vitamin C deficiency disease. This hypothesis was put forward by Linus Pauling. The capacity of endosymbiotic archaea to synthesize vitamin C may protect against it. Vitamin C is required for insulin secretion and its deficiency leads to diabetes mellitus and metabolic syndrome. Vitamin C deficiency leads to oncogenesis.

Vitamin C deficiency generates free radicals which can activate oncogenes producing cell proliferation. The defective collagen matrix that is formed can

lead to metastasis. Oncogenesis can be considered as a vitamin C deficiency syndrome. Vitamin C is seen in high levels in lymphocytes. Vitamin C deficiency leads to immunosuppression and viral infections. Vitamin C is anti-viral agent. Vitamin C is required for lymphocyte function and its deficiency leads to autoimmune disease. Vitamin C deficiency leads to free radical generation and cell death and neurodegeneration.

All the civilizational disorders of schizophrenia, autism, autoimmune disease, neurodegeneration, metabolic syndrome x, cancer and atherosclerosis. The archaeaon is the cellular organelle concerned with ascorbic acid synthesis and cyto protection. It can be considered as a vitaminocyte.[1-3]

References

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